

**Review of draft Common Engineering Assumptions, May 6, 2019**  
**DEP Team Comments, May 16, 2019**

Page 1, first para: The reference to 4 active remedial alternatives should note that the alternative that falls outside of the project RAOs for dioxin and PCB SWAC attainment will be automatically screened out early in analysis and has only been included for the purposes of comparison.

Sediment Removal, 1st bullet: Although a removal depth of 2.5 feet is estimated for the removal footprint, it should be noted that this does not apply to any sediments that are marked for 'dredge to clean', as this will be later finalized as part of the design process and as more data becomes available. A 'dredge to clean' feature should be considered for application to all alternatives where data suggest such is feasible, thereby avoiding the need for cap placement and the associated long-term maintenance and monitoring in these areas.

Dredged Material Management, 3<sup>rd</sup> bullet: Given the prominence of dioxins and PCBs for this project, in addition to facility permit and space limitations, it should be noted that RCRA Subtitle D facilities often have facility-specific restrictions on special chemicals, such as, chlorinated dioxins and furans, PCBs and perhaps others, and these will also influence disposal decisions.

Capping, 3<sup>rd</sup> bullet: Habitat considerations should be included along with location and armoring requirements for cap type and thickness. In addition, cap surface design needs to consider future river use by surrounding communities for recreational purposes.

Monitored Natural Recovery, 1<sup>st</sup> bullet: States "Ongoing natural recovery is expected in the unremediated areas...". This statement may be misinterpreted to imply that the river is already naturally recovering to a sufficient degree without a remedial action. Suggested language, "Accelerated natural recovery is expected in the unremediated areas ...".

Monitoring, 1<sup>st</sup> bullet: Monitoring is listed as baseline, construction, operation & maintenance, and long-term monitoring. As discussed during FS meetings, SWAC confirmation sampling will be required as part of the interim remedy. This type of monitoring, performed during an agreed-upon timeframe soon after Interim Remedy construction, should be reflected within this document.

Monitoring, 3<sup>rd</sup> bullet: It is noted that sediment monitoring is incorporated during construction in order to evaluate remedial design, compliance with performance standards, and to support construction certification process. Although not specifically stated, among other goals (e.g., comment on bullet 1, above), this type of monitoring is needed to check on effectiveness of best management practices for control of contaminated residuals and prevention of recontamination in both remediated and unremediated areas.

Adaptive Management: As discussed in prior FS meetings and through prior Department comments, a structured adaptive management (AM) framework needs to be established -- to integrate AM sooner in the IR process (planning, construction and post-remedial) for reducing areas of project uncertainty, which will advance attaining project goal sooner and with greater assurance. This necessarily includes identifying final risk-based remedial goals as soon in the process as feasible, as these are considered the defining goal posts for a structured AM approach.

Habitat Considerations: Clarification is needed. The expectation is that disturbed habitat will be restored in a manner that supports ecological value equal to current conditions or allows improvement.

Lessons Learned: Another category to integrate under *common engineering elements* includes Lessons Learned, especially from the TCRA RM.9 Interim Remedial Project (planning, construction, post-remedial monitoring, etc.) and other potentially-applicable sediment remediation projects across the US, with similar issues or conditions.